



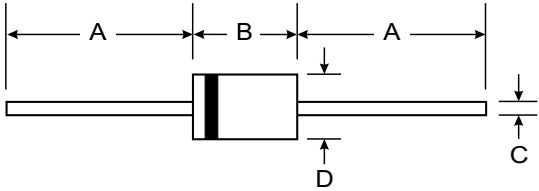
# TZX2V4 - TZX36C

500mW EPITAXIAL PLANAR ZENER DIODE

PRELIMINARY

### Features

- Planar Die Construction
- 500mW Power Dissipation on FR-4 PCB
- General Purpose, Medium Current



### Mechanical Data

- Case: DO-35, Glass
- Leads: Solderable per MIL-STD-202, Method 208
- Marking: Type Number
- Polarity: Cathode Band
- Weight: 0.35 grams (approx.)

DO-35		
Dim	Min	Max
A	25.40	—
B	—	4.00
C	—	0.60
D	—	2.00
All Dimensions in mm		

### Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Zener Current (See Table on page 2)	—	—	—
Forward Voltage @ I <sub>F</sub> = 200mA	V <sub>F</sub>	1.5	V
Power Dissipation (Note 1)	P <sub>d</sub>	500	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	300	K/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +175	°C

- Notes:
- Valid provided that leads are kept at ambient temperature.
  - Tested with pulses, t ≤ 1.0ms.

**Electrical Characteristics** @  $T_A = 25^\circ\text{C}$  unless otherwise specified

Type Number	Zener Voltage Range (Note 2)		Test Current	Maximum Zener Impedance	Maximum Reverse Leakage Current	
	$V_Z @ I_{ZT}$		$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$I_R$	@ $V_R$
	Min (V)	Max (V)	mA	$\Omega$	$\mu\text{A}$	V
TZX2V4	2.3	2.6	5.0	100	5.0	0.5
TZX2V4A	2.3	2.5	5.0	100	5.0	0.5
TZX2V4B	2.4	2.6	5.0	100	5.0	0.5
TZX2V7	2.5	2.9	5.0	100	5.0	0.5
TZX2V7A	2.5	2.7	5.0	100	5.0	0.5
TZX2V7B	2.6	2.8	5.0	100	5.0	0.5
TZX2V7C	2.7	2.9	5.0	100	5.0	0.5
TZX3V0	2.8	3.2	5.0	100	5.0	0.5
TZX3V0A	2.8	3.0	5.0	100	5.0	0.5
TZX3V0B	2.9	3.1	5.0	100	5.0	0.5
TZX3V0C	3.0	3.2	5.0	100	5.0	0.5
TZX3V3	3.1	3.5	5.0	100	5.0	1.0
TZX3V3A	3.1	3.3	5.0	100	5.0	1.0
TZX3V3B	3.2	3.4	5.0	100	5.0	1.0
TZX3V3C	3.3	3.5	5.0	100	5.0	1.0
TZX3V6	3.4	3.8	5.0	100	5.0	1.0
TZX3V6A	3.4	3.6	5.0	100	5.0	1.0
TZX3V6B	3.5	3.7	5.0	100	5.0	1.0
TZX3V6C	3.6	3.8	5.0	100	5.0	1.0
TZX3V9	3.7	4.1	5.0	100	5.0	1.0
TZX3V9A	3.7	3.9	5.0	100	5.0	1.0
TZX3V9B	3.8	4.0	5.0	100	5.0	1.0
TZX3V9C	3.9	4.1	5.0	100	5.0	1.0
TZX4V3	4.0	4.5	5.0	100	5.0	1.5
TZX4V3A	4.0	4.2	5.0	100	5.0	1.5
TZX4V3B	4.1	4.3	5.0	100	5.0	1.5
TZX4V3C	4.2	4.4	5.0	100	5.0	1.5
TZX4V3D	4.3	4.5	5.0	100	5.0	1.5
TZX4V7	4.4	4.9	5.0	100	5.0	2.0
TZX4V7A	4.4	4.6	5.0	100	5.0	2.0
TZX4V7B	4.5	4.7	5.0	100	5.0	2.0
TZX4V7C	4.6	4.8	5.0	100	5.0	2.0
TZX4V7D	4.7	4.9	5.0	100	5.0	2.0
TZX5V1	4.8	5.3	5.0	100	5.0	2.0
TZX5V1A	4.8	5.0	5.0	100	5.0	2.0
TZX5V1B	4.9	5.1	5.0	100	5.0	2.0
TZX5V1C	5.0	5.2	5.0	100	5.0	2.0
TZX5V1D	5.1	5.3	5.0	100	5.0	2.0
TZX5V6	5.2	5.9	5.0	40	5.0	2.0
TZX5V6A	5.2	5.5	5.0	40	5.0	2.0
TZX5V6B	5.3	5.6	5.0	40	5.0	2.0
TZX5V6C	5.4	5.7	5.0	40	5.0	2.0
TZX5V6D	5.5	5.8	5.0	40	5.0	2.0
TZX5V6E	5.6	5.9	5.0	40	5.0	2.0

Notes: 1. Valid provided that device terminals are kept at ambient temperature.  
2. Tested with pulses,  $t \leq 1.0\text{ms}$ .

**Electrical Characteristics** @  $T_A = 25^\circ\text{C}$  unless otherwise specified

Type Number	Zener Voltage Range (Note 2)		Test Current	Maximum Zener Impedance	Maximum Reverse Leakage Current	
	$V_Z @ I_{ZT}$		$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$I_R$	@ $V_R$
	Min (V)	Max (V)	mA	$\Omega$	$\mu\text{A}$	V
TZX6V2	5.7	6.6	5.0	15	1.0	3.0
TZX6V2A	5.7	6.0	5.0	15	1.0	3.0
TZX6V2B	5.9	6.1	5.0	15	1.0	3.0
TZX6V2C	6.0	6.3	5.0	15	1.0	3.0
TZX6V2D	6.1	6.4	5.0	15	1.0	3.0
TZX6V2E	6.3	6.6	5.0	15	1.0	3.0
TZX6V8	6.4	7.2	5.0	15	1.0	3.5
TZX6V8A	6.4	6.7	5.0	15	1.0	3.5
TZX6V8B	6.6	6.9	5.0	15	1.0	3.5
TZX6V8C	6.7	7.0	5.0	15	1.0	3.5
TZX6V8D	6.9	7.2	5.0	15	1.0	3.5
TZX7V5	7.0	7.9	5.0	15	1.0	5.0
TZX7V5A	7.0	7.3	5.0	15	1.0	5.0
TZX7V5B	7.2	7.6	5.0	15	1.0	5.0
TZX7V5C	7.3	7.7	5.0	15	1.0	5.0
TZX7V5D	7.5	7.9	5.0	15	1.0	5.0
TZX8V2	7.7	8.7	5.0	20	1.0	6.2
TZX8V2A	7.7	8.1	5.0	20	1.0	6.2
TZX8V2B	7.9	8.3	5.0	20	1.0	6.2
TZX8V2C	8.1	8.5	5.0	20	1.0	6.2
TZX8V2D	8.3	8.7	5.0	20	1.0	6.2
TZX9V1	8.5	9.7	5.0	20	1.0	6.8
TZX9V1A	8.5	8.9	5.0	20	1.0	6.8
TZX9V1B	8.7	9.1	5.0	20	1.0	6.8
TZX9V1C	8.9	9.3	5.0	20	1.0	6.8
TZX9V1D	9.1	9.5	5.0	20	1.0	6.8
TZX9V1E	9.3	9.7	5.0	20	1.0	6.8
TZX10	9.5	10.6	5.0	25	1.0	7.5
TZX10A	9.5	9.9	5.0	25	1.0	7.5
TZX10B	9.7	10.1	5.0	25	1.0	7.5
TZX10C	9.9	10.3	5.0	25	1.0	7.5
TZX10D	10.2	10.6	5.0	25	1.0	7.5
TZX11	10.4	11.6	5.0	25	1.0	8.2
TZX11A	10.4	10.8	5.0	25	1.0	8.2
TZX11B	10.7	11.1	5.0	25	1.0	8.2
TZX11C	10.9	11.3	5.0	25	1.0	8.2
TZX11D	11.1	11.6	5.0	25	1.0	8.2
TZX12	11.4	12.7	5.0	35	1.0	9.5
TZX12A	11.4	11.9	5.0	35	1.0	9.5
TZX12B	11.6	12.1	5.0	35	1.0	9.5
TZX12C	11.9	12.4	5.0	35	1.0	9.5
TZX12D	12.2	12.7	5.0	35	1.0	9.5
TZX13	12.4	13.4	5.0	35	1.0	10
TZX13A	12.4	12.9	5.0	35	1.0	10
TZX13B	12.6	13.1	5.0	35	1.0	10
TZX13C	12.9	13.4	5.0	35	1.0	10

Notes: 1. Valid provided that device terminals are kept at ambient temperature.  
2. Tested with pulses,  $t \leq 1.0\text{ms}$ .

**Electrical Characteristics** @  $T_A = 25^\circ\text{C}$  unless otherwise specified

Type Number	Zener Voltage Range (Note 2)		Test Current	Maximum Zener Impedance	Maximum Reverse Leakage Current	
	$V_Z @ I_{ZT}$		$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$I_R$	@ $V_R$
	Min (V)	Max (V)	mA	$\Omega$	$\mu\text{A}$	V
TZX14	13.2	14.3	5.0	35	1.0	11
TZX14A	13.2	13.7	5.0	35	1.0	11
TZX14B	13.5	14.0	5.0	35	1.0	11
TZX14C	13.8	14.3	5.0	35	1.0	11
TZX15	14.1	15.5	5.0	40	1.0	11.5
TZX15A	14.1	14.7	5.0	40	1.0	11.5
TZX15B	14.5	15.1	5.0	40	1.0	11.5
TZX15C	14.9	15.5	5.0	40	1.0	11.5
TZX16	15.3	17.1	5.0	45	1.0	12
TZX16A	15.3	15.9	5.0	45	1.0	12
TZX16B	15.7	16.5	5.0	45	1.0	12
TZX16C	16.3	17.1	5.0	45	1.0	12
TZX18	16.9	19.0	5.0	55	1.0	13
TZX18A	16.9	17.7	5.0	55	1.0	13
TZX18B	17.5	18.3	5.0	55	1.0	13
TZX18C	18.1	19.0	5.0	55	1.0	13
TZX20	18.8	21.2	2.0	60	1.0	15
TZX20A	18.8	19.7	2.0	60	1.0	15
TZX20B	19.5	20.4	2.0	60	1.0	15
TZX20C	20.2	21.2	2.0	60	1.0	15
TZX22	20.9	23.3	2.0	65	1.0	17
TZX22A	20.9	21.9	2.0	65	1.0	17
TZX22B	21.6	22.6	2.0	65	1.0	17
TZX22C	22.3	23.3	2.0	65	1.0	17
TZX24	22.9	25.5	2.0	70	1.0	19
TZX24A	22.9	24.0	2.0	70	1.0	19
TZX24B	23.6	24.7	2.0	70	1.0	19
TZX24C	24.3	25.5	2.0	70	1.0	19
TZX27	25.2	28.6	2.0	80	1.0	21
TZX27A	25.2	26.6	2.0	80	1.0	21
TZX27B	26.2	27.6	2.0	80	1.0	21
TZX27C	27.2	28.6	2.0	80	1.0	21
TZX30	28.2	31.6	2.0	100	1.0	23
TZX30A	28.2	29.6	2.0	100	1.0	23
TZX30B	29.2	30.6	2.0	100	1.0	23
TZX30C	30.2	31.6	2.0	100	1.0	23
TZX33	31.2	34.5	2.0	120	1.0	25
TZX33A	31.2	32.6	2.0	120	1.0	25
TZX33B	32.2	33.6	2.0	120	1.0	25
TZX33C	33.2	34.5	2.0	120	1.0	25
TZX36	34.2	38.0	2.0	140	1.0	27
TZX36A	34.2	35.7	2.0	140	1.0	27
TZX36B	35.3	36.8	2.0	140	1.0	27
TZX36C	26.4	38.0	2.0	140	1.0	27

Notes: 1. Valid provided that device terminals are kept at ambient temperature.  
2. Tested with pulses,  $t \leq 1.0\text{ms}$ .